Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

has now passed beyond the preliminary stage. Important results have already been obtained and much more may be expected in the future, especially since the occupation of new quarters by the laboratory will make possible the investigations of mineral behavior under high pressures originally contemplated. The study of the feldspars and other minerals resulted in the location of several cases of reversible changes and one of irreversible change. Wollastonite possesses one crystal form below 1,200° and another above that temperature and either of these forms may be changed to the other. Three forms of magnesium metasilicate may be changed into a fourth by heating, but the reverse change does not occur; and yet enstatite, the magnesium silicate compound common in rocks, is not this stable form. Quartz was found to change over to tridymite at 800°, if given time enough; showing that this mineral, so common in nature, has been formed at a relatively low temperature. "Quartz-glass," a most useful material which can be raised to a white heat without melting and subjected to sudden changes of temperature without breaking, was successfully prepared, though quite high temperatures (above 1,600° C.) and some pressure were necessary. The valuable properties of Portland cement have been attributed to tricalcic silicate, but this compound was found not to exist; further study may reveal the true chemical relations which determine the action of this cement. Textures similar to those of certain schistose metamorphic rocks were produced in the laboratory by submitting crystallizing substances to unequal stresses; thus confirming the conclusions of Van Hise in regard to the cause of schistosity in rocks. The published work of the laboratory has appeared in various scientific journals, as enumerated in the paper.

H. H.

The Mountains of Southernmost Africa. By W. M. DAVIS. Reprinted from Bulletin of the American Geographical Society, Vol. XXXVIII, October, 1906.

One of the best-defined physiographic features of South Africa is the mountain system, occupying the southern border and here referred to as the Cape Colony ranges. It comprises a number of nearly parallel east and west ridges and longitudinal valleys which do not conform in direction to the trend of the southern sea coast but are cut irregularly by it. The sea has advanced on these mountains, leaving but a remnant of the whole system, and this remnant has itself suffered extensive denudation. Americans will be particularly interested to learn that the Cape Colony ranges are in many respects similar to the Alleghenies. The strata, with the exception

of a few Mesozoic formations in South Africa, are Paleozoic in both cases, and were originally spread out in horizontally uniform sheets of great vertical diversity. Great thicknesses of rock were laid down on slowly subsiding peneplains until compressional forces crowded them into parallel folds with overturns directed toward the continental center and with essentially flat plateaus on the landward side of the systems. In both cases, therefore, the mountain-making forces produced thrusts directed from the ocean toward the land masses. The massive Karroo formations in southernmost Africa, as the Carboniferous strata in the Appalachians, have been almost entirely removed from the folded area by a long period of erosion, which produced a partial peneplanation; while the renewal of deep erosion since that period is the result of another relative uplift. The present configuration of the mountains is in no sense due to the form the country received originally as a result of the action of the compressional forces, though the prevalence of anticlinal ridges and synclinal valleys has proved a snare to some observers. The synclinal valleys are occupied by *resequent*, not *consequent*, streams; the early consequent streams were diverted to the anticlines at one period, but were forced back into synclinal positions by the resistance of a second deep-lying hard stratum. Where the beds of a regularly folded region are of great vertical diversity and the geologic history is similar to that of the Alleghenies or the Cape Colony ranges, the resequent type of valley is the one which theoretical considerations indicate as the natural result of the conditions prevailing. H. H.

Drainage Modifications in the Tallulah District. By DOUGLAS WILSON JOHNSON. Proceedings of the Boston Society of Natural History, Vol. XXXIII, No. 5; pp. 211–48. Boston, February, 1907.

The Chattooga River flows southwest between Georgia and South Carolina to the westernmost point in the latter state, where it receives the Tallulah River as a tributary from the northwest and then turns abruptly to the southeast and flows to the Atlantic Ocean under the names of the Tugaloo and Savannah rivers. A few miles from this abrupt bend, Deep Creek, one of the headwaters of the Chattahoochie system, continues the course started by the Chattooga to the southwest.

The conclusion is reached that, by a process of "remote capture," the Chattooga River, which formerly flowed southwest into the Gulf of Mexico as a part of the Chattahoochie system, was captured by a member of the Savannah system. The Atlantic drainage gained this victory over that of